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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,222	12/31/2003	Valerie Guralnik	256.186US1	6645

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EXAMINER	
BHAT, ADITYA S	
ART UNIT	**PAPER NUMBER**
2863	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,222	GURALNIK ET AL.	
	Examiner	Art Unit	
	Aditya S. Bhat	2863	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) *29* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-29* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 December 2003* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-28, are drawn to event identification, classified in class 702, subclass 185.

II. Claim 29, is drawn to a training module, classified in class 706, subclass 14.

The inventions are distinct, each from the other because of the following reasons:

Inventions of each of groups I-II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, inventions can each be used for their respective uses has separate utility. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

During a telephone conversation with Bradley Forrest on 9/29/05 a provisional election was made without traverse to prosecute the invention of group I, claims 1-28. Affirmation of this election must be made by applicant in replying to this Office action. Claim 29 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Qin et al. (USPN 6,594,620).

With regards to claims 1 and 16, Qin et al. (USPN 6,594,620) teaches a system and method of identifying events in a process, comprising:

running a principal component analysis model on sensor data from the process; calculating statistics related to the model; (Col. 2, lines 60-63)

determining if an event is occurring; (Col.3, lines 10-13) and

finding a nearest cluster of bad actors related to the event to identify the event. (Col.3, lines 10-13)

With regards to claims 2 and 17, Qin et al. (USPN 6,594,620) teaches a nearest cluster of bad actors comprises comparing the bad actor vectors to known clusters in a library of clusters for bad actors. (Col. 2, lines 42-44)

With regards to claims 3 and 18, Qin et al. (USPN 6,594,620) teaches identifying a sequence of cluster matches; and correlating the sequence of cluster matches to known events. (Col.6, Lines 29-41)

With regards to claims 4 and 19, Qin et al. (USPN 6,594,620) teaches determining if a cluster needs to be split when new bad actors are added; and splitting the cluster into two clusters using a goodness of fit algorithm. (col. 19, lines 1-2)

With regards to claims 5 and 20, Qin et al. (USPN 6,594,620) teaches determining if a new event category is encountered; and broadening limits for the sequence of clusters. (col. 5, lines 30-41)

With regards to claim 6, Qin et al. (USPN 6,594,620) teaches a cluster is limited to a predetermined number of bad actors. (Col. 25, lines 14-17)

With regards to claim 7, Qin et al. (USPN 6,594,620) teaches the predetermined number of bad actors is ten. (Col. 8, line 50)

With regards to claims 8 and 21, Qin et al. (USPN 6,594,620) teaches the statistics comprise Q (residual error) (Col. 18, line 63) and T2 (unusual variance)(Col. 3, line 32).

With regards to claims 9 and 22, Qin et al. (USPN 6,594,620) teaches using a feature scoring scheme to identify top contributors of bad actors. (col. 2, lines 42-43)

With regards to claims 10 and 23, Qin et al. (USPN 6,594,620) teaches the feature scoring scheme is based on rank, value, and percent of contribution to a Q-residual sensor to identify a relative importance. (col. 2, lines 42-44)

With regards to claims 11 and 24, Qin et al. (USPN 6,594,620) teaches the top-contributors are determined based on a majority percentage of the Q-residual. (col. 2, lines 42-44)

With regards to claims 12 and 25, Qin et al. (USPN 6,594,620) teaches the top-contributors are determined based on only the contributors with absolute values that are drastically different from values of other contributors. (col. 2, lines 42-44)

With regards to claims 13 and 26, Qin et al. (USPN 6,594,620) teaches the scoring scheme is based on predetermined limits. (col. 2, lines 42-44)

With regards to claims 14 and 27, Qin et al. (USPN 6,594,620) teaches the limits are computed statistically through change point detections. (Col. 2, lines 54-55)

With regards to claims 15 and 28, Qin et al. (USPN 6,594,620) teaches a predetermined minimum/maximum number of contributors are selected from rank, value, and percent of contribution to a Q-residual sensor to identify a relative importance. (col. 2, lines 42-44)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Barna et al. (USPN 5,864,773) teaches a virtual sensor based monitoring and fault detection/ classification system and method for semiconductor processing equipment, Hopkins et al. (USPN 5,442,562) teaches a method of controlling a manufacturing process using multivariable analysis, Bunkofske (USPN 6,442,445) teaches a user configurable multivariable time series reduction tool control method, and Uluyol et al. (USPUB 2004/0176901) teaches a transient fault detection system and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat
September 29, 2005

BRYAN BUI
PRIMARY EXAMINER